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ABSTRACT

The report summarizes an evaluation of the effects of summer programs on the behaviors and skills of 186 severely handicapped children. Programs were categorized by their orientation and by their length, resulting in five groupings: (1) 6-week high structure (educational skill and behavior goal-oriented), (2) medium structure (mixed recreational and educational), and (3) low structure (recreational) programs, as well as (4) short programs (2-4 weeks duration), and (5) no program groups. Analysis of scores on the Inappropriate Behaviors Observation Checklist (developed for the study) and teacher ratings of basic skills revealed evidence of retention and improvement in Ss from the more highly structured programs which emphasized skills and behaviors, when these were measured immediately following programs. Positive effects were maintained midyear for skills but not for behaviors. For recreational programs which did not focus on skills and behaviors, there was regression in behaviors immediately following summer programs, but the losses were reversed at midpoint in the subsequent school year. Although more Ss from all programs retained than lost skills, those from the more highly structured programs gained skills more frequently than any others, and they retained this favorable position during the subsequent school year. (Author/CL)

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Summer Programs for the Severely Handicapped

Summary

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S U M M E R P R O G R A M S

FOR THE

S E V E R E L Y H A N D I C A P P E D

Summary

Dr. Louise Zdunich

A Study Conducted Under Contract

to

ALBERTA EDUCATION

Edmonton, Alberta

May, 1984

FOREWORD

The study contained in this present report was planned, designed and executed by educators. Hence the purpose of the study was to ascertain what occurs during the summer months to those skills and behaviors of severely handicapped children which are the focus of school-year programs for them. An intensive study of the published research literature supported the notion that prevention of regression in these areas was the primary reason for existence of summer programs for severely handicapped children.

This purpose needs to be borne in mind as the report is read since some of the summer programs which were attended by a number of subjects in the study did not have as goals behavior and skill retention/improvement. Instead, programs herein designated as Low Structure and Short programs had integrated recreation with its consequent benefits as their primary goal. These aspects were not directly measured by this study, although they were frequently mentioned by questionnaire respondents and observed by researchers visiting programs. Goals such as these are not necessarily any less valid or beneficial than the goals chosen for the focus of this study.

Copies of the complete report for this study (300 pp.) may be borrowed from the following sources: libraries of Canadian universities, central offices of Alberta School Districts, Alberta Education Regional Offices, or obtained on microfiche from Micromedia or the ERIC Document Services.

ABSTRACT

A quasi-experimental study of the effects of summer programs on the behaviors and skills of severely handicapped children revealed evidence of retention and improvement in children from the more highly structured programs which emphasized skills and behaviors when these were measured immediately following programs. The positive effects were maintained midyear for skills but not for behaviors. For recreational programs which did not focus on skills and behaviors, there was regression in behaviors immediately following summer programs but the losses were reversed at midpoint in the subsequent school year. Although more students from all programs retained than lost skills, those from the more highly structured programs gained skills more frequently than any others and they retained this favorable position during the subsequent school year.

SUMMARY

A quasi-experimental pretest, posttest, delayed posttest design was utilized to study the differential effects of various types of summer programs in Alberta on the skills and behaviors of severely handicapped children. Figure 1 on the following page portrays the timeline and activities for the two phases of the study.

Programs were categorized by their orientation and by their length, resulting in five groupings: six-week High Structure (educational skill and behavior goal-oriented), Medium Structure (mixed recreational and educational), and Low Structure (recreational) Programs, as well as Short Programs (two to four weeks duration), and No Program groups. A total of 186 children were retained in the follow-up phase of the study from the original 201 subjects. Table 1 depicts the numbers of children who were part of the entire study by program types.

Table 1

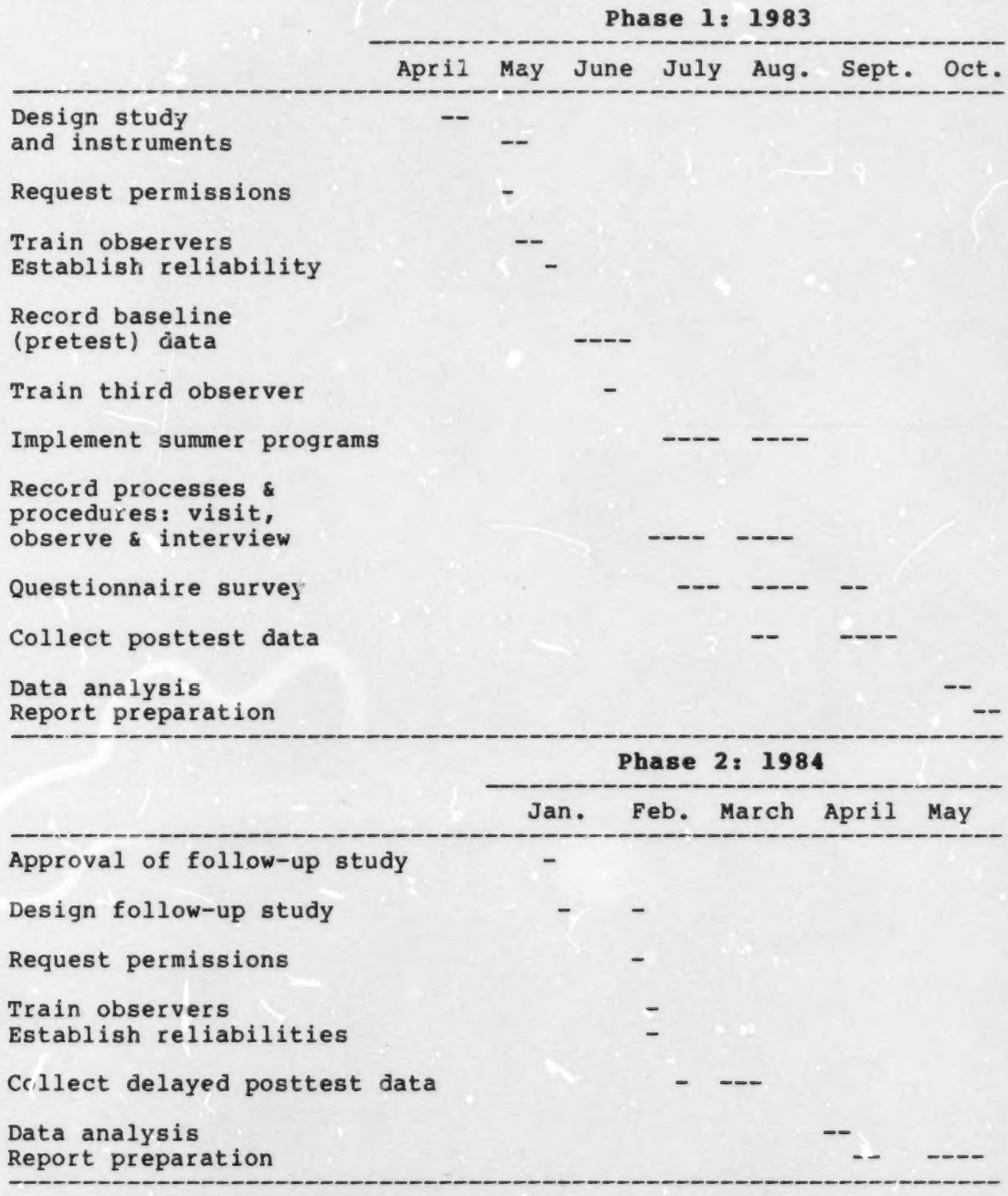
Number of Students in Each Sample Group

No Program	Short Program	High Structure	Medium Structure	Low Structure*	Total
54	44	21	32	35	186

*Note. Low Structure and Short programs emphasized recreational goals which were distinctly different from the skill and behavior retention and improvement that were objects of this study.

Figure 1

Timeline of Activities



Summer Program Impact on Inappropriate Behaviors

Observation of inappropriate behaviors took place in the school setting prior to and following summer programs, as well as midway during the subsequent school year. These were recorded on the Inappropriate Behaviors Observation Checklist developed for this study.

This instrument was developed by utilizing and revising items from a number of published and unpublished instruments suitable for the assessment of behaviors of various types of handicapped children. At every stage of its development, revised items were repeatedly field tested on a group of children of all ages for whom the instrument was being prepared.

The final form of the instrument provided for recording the following inappropriate behaviors: passive (PASS), active (ACT), self-abusive (SAB), personal (PER), repetitive (REP), interpersonal (INT), as well as total inappropriate behaviors (TOT).

Reliability of Observations

Interobserver agreement measures were taken twice following the development of the final form of the instrument and the training of observers. For Phase 1 of the study, one check on reliability occurred just immediately prior to the

beginning of observations. The second was two weeks after observations began when a third researcher was trained and hired. For Phase 2 of the study, follow-up interobserver agreement data were collected immediately prior to the collection of midyear data after the training of observers.

Table 2 summarizes the percentage agreement between pairs of observers in both phases of the study. Percentage agreement was generally high except where occurrence of behaviors was infrequent, causing magnified percentages for small differences.

Table 2

Interobserver Percentage Agreement for Behaviors

Behaviors	PASS	ACT	SAB	PER	REP	INT	TOT
Phase 1: First Measure							
Raters #1 & #2	98	100	100	94	92	100	98
Phase 1: Second Measure							
Raters #1 & #2	92	100	100	73	87	67	88
#1 & #3	82	75	100	91	73	67	78
#2 & #3	75	75	100	72	85	100	88
Phase 2							
Raters #1 & #2	98	90	75	93	93	100	99
#1 & #3	95	94	75	98	93	100	99
#2 & #3	94	85	100	95	100	100	100

Note. Where agreement was low, occurrence of behaviors was infrequent.

Results of Statistical Analysis on Inappropriate Behaviors

Do summer programs prevent regression or improve severely handicapped children's behaviors? Are beneficial effects retained over time?

Post-summer Phase 1 statistical analysis revealed that the immediate impact of summer programs on inappropriate behaviors was significantly better in High and Medium Structure summer program groups than in the No, Short and Low Structure program groups. In effect, High and Medium Structure programs produced a decrease in inappropriate behaviors while children in the other programs as well as those in no programs increased their inappropriate behaviors. High and Medium Structure groups combined had a significantly greater percentage of children reducing the number of total inappropriate behaviors predicted for them than did those in the combined No, Short and Low Structure program groups.

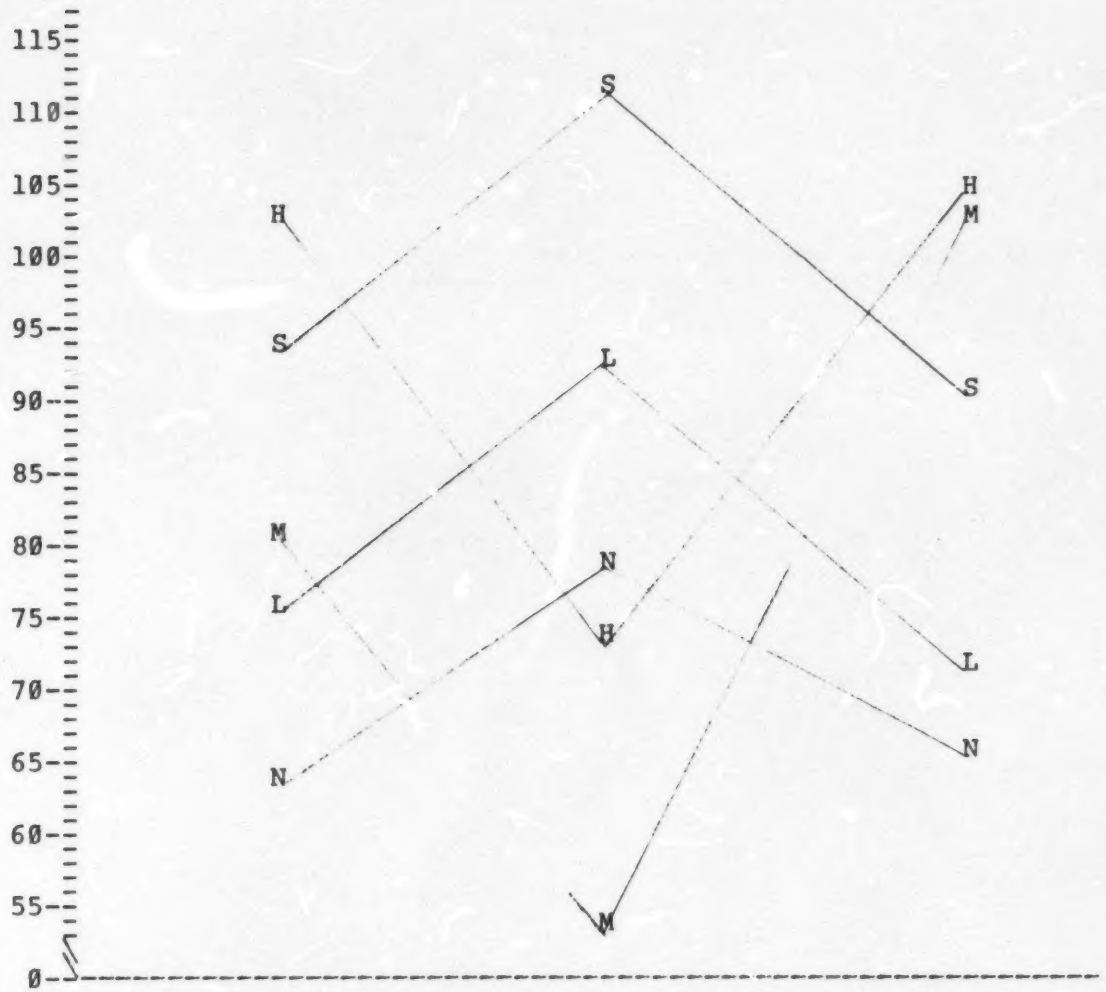
The follow-up Phase 2 portion of the study, based on observations recorded five to six months later revealed a reversal of trends in inappropriate behavior changes. Inappropriate behavior group means for High and Medium Structure programs increased during the fall and winter while inappropriate behavior means of No, Short and Low Structure Program groups decreased. All programs basically returned to their pre-summer inappropriate behavior levels. Figure 2 graphically depicts the data relative to inappropriate

behaviors at the three points of data collection, utilizing averages for subjects who were part of the entire study.

Figure 2

Total Inappropriate Behaviors

Pretest, Posttest, Delayed Posttest Means



Summer Program Impact on Skills

Another important area for the education of severely handicapped children is that of basic skills. These skills (gross and fine motor, eating, toileting, dressing, receptive and expressive communication, interpersonal interaction and classroom behavior) are the objective of school programs and are constantly being assessed by teachers in the classroom. Teachers were considered to be in the best position to know what actually occurred in skill levels of children in their classrooms. Therefore, perceptions of changes in skill levels following summer programs and midway during the school year were obtained from classroom teachers utilizing a checklist covering the skills needed for independent functioning. For the two phases of the study, Figure 3 graphically portrays the percentages of children for each program group who lost, retained and gained for all skills combined.

Do summer programs prevent regression or improve severely handicapped children's skills? Are beneficial effects retained over time?

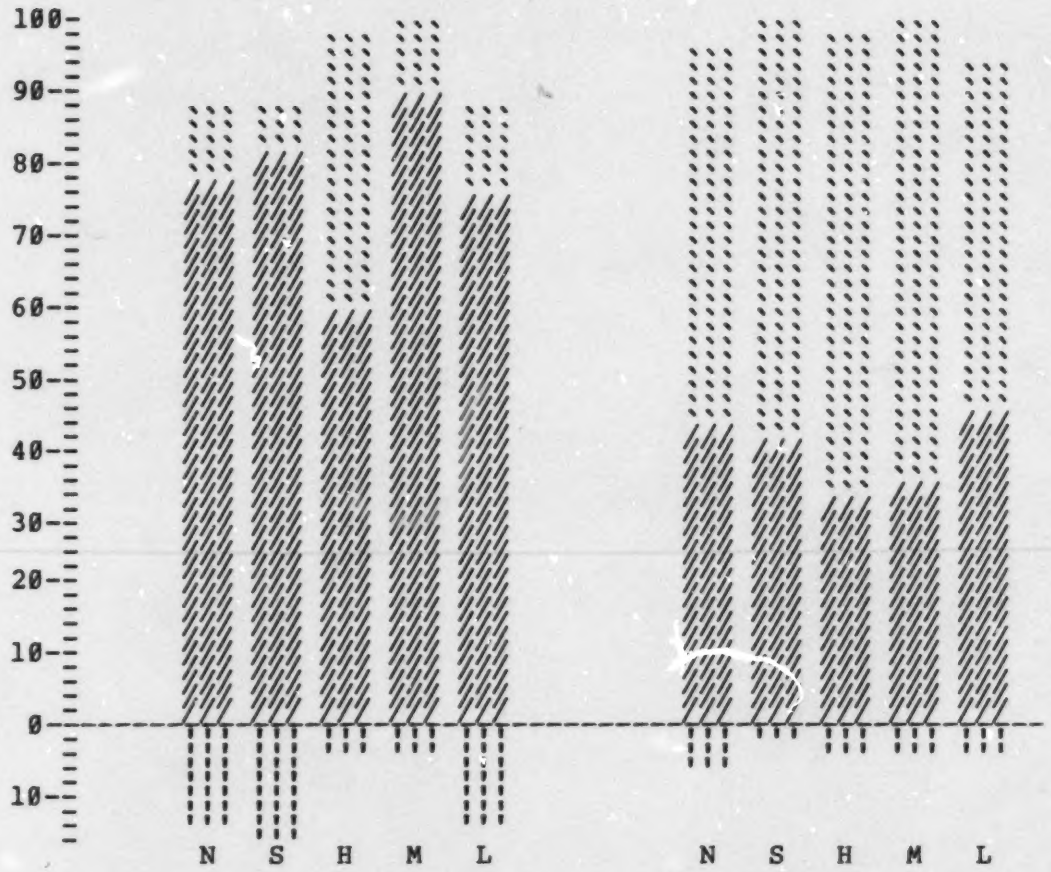
Post-summer Phase 1 analysis of data collected in September revealed that there was significantly greater gain plus retention of skills during the summer in High and Medium Structure programs than in the other groups. High Structure programs produced a significantly greater percentage of children who gained skills compared to all other programs.

The follow-up Phase 2 portion of the study showed that there were no significant differences in group changes in skills from fall to spring; the differences observed at the end of summer programs were retained midyear.

Figure 3

Overall Skill Loss, Retention and Gain

Percentages of Children



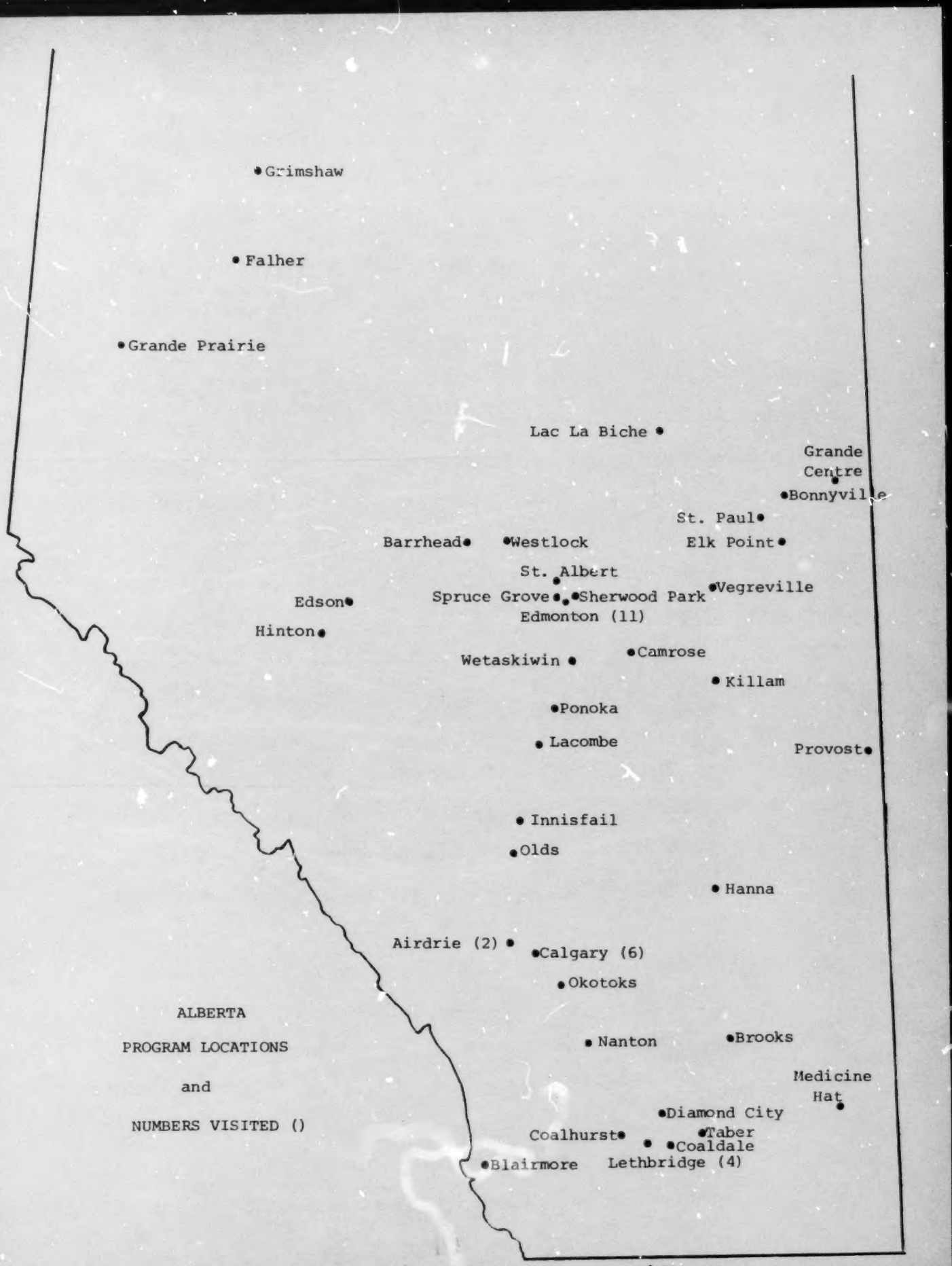
Summer Program Processes and Procedures

Data were collected on various processes and procedures employed in summer programs. General characteristics of programs were recorded. Teaching methods and interaction between children and adults were observed throughout the province by the researchers who visited 60 sites during the implementation of summer programs. Data were grouped and percentages calculated for each area under consideration according to program types. (See map on the following page).

Summer programs visited by researchers were serving about 700 handicapped individuals, of whom about one-third were severely handicapped. A similar number of non-handicapped children, mostly pre-teens, participated in these programs. About one-half of all programs during the summer of 1984 were recreational (Low Structure) in nature and about the same percentage were full day, six-week or longer programs. About three-quarters of the programs employed summer-only university students exclusively or in conjunction with more permanent staff.

Programs utilized a variety of activities to attain their objectives. Structured teaching was employed mostly by High Structure programs and learning through play by Medium and Low Structure programs. Crafts, music, art, field trips and camping were important elements of Low Structure and Short programs, as well as of Medium Structure programs.

A process-product analysis was undertaken to determine


Grimshaw
Falher
Grande Prairie
Lac La Biche
Grande Centre
Bonnyville
St. Paul
Elk Point
Barrhead
Westlock
St. Albert
Vegreville
Edson
Spruce Grove
Sherwood Park
Edmonton (11)
Hinton
Wetaskiwin
Camrose
Killam
Ponoka
Lacombe
Provost
Innisfail
Olds
Hanna
Airdrie (2)
Calgary (6)
Okotoks
ALBERTA
PROGRAM LOCATIONS
and
NUMBERS VISITED ()
Nanton
Brooks
Medicine Hat
Diamond City
Taber
Coalhurst
Coaldale
Blairmore
Lethbridge (4)

if selected summer program teaching and interaction methods were correlated with changes in post-summer inappropriate behaviors. Results of the correlation analysis indicated that there was a significant relationship between the amount of summer program time that was spent in direct instruction, as well as positive reinforcement with improvement in posttest behavior scores. The amount of summer time children spent in self-involved negative behaviors such as self-stimulation or passivity correlated positively with an increase in posttest inappropriate behavior scores.

Social Validation of Summer Programs

Social validation questionnaires were utilized to acquire information on parent and staff perceptions of program implementation. Responses of parents and staff showed that almost unanimously, they considered summer programs as very valuable for severely handicapped children. In addition, parents felt that summer programs providing relief to the family ultimately benefited the child in this way as well.

Although parents agreed to increasing emphasis on skills and behaviors, those whose children attended Low Structure programs did not want to lose the recreational aspect. Integration with non-handicapped children and the community was also viewed by questionnaire respondents as a positive factor in the lives of the handicapped and non-handicapped alike. Therefore, all programs had beneficial

effects not measured directly by this study but strongly attested to by parents and staff.

Conclusions

It can be concluded from the results of this study that programs with a strong skill orientation helped severely handicapped children retain and gain skills to a significantly greater degree than did the long and short recreational programs with no skill emphasis. Skill benefits were evident immediately after summer programs and were retained over time. However, although highly structured summer programs with a strong behavior emphasis had a significantly greater immediate impact in reduction of inappropriate behaviors, this positive effect was not retained over time.

The strong endorsement of summer programs and the positive effects attested to by parents and summer school staff support the conclusion of this researcher that summer programs have greater beneficial effects for severely handicapped children than immediately appeared evident by the results of this study. Some of these benefits, such as those of integrated recreation with its consequent socialization and enjoyment were not directly measured by this study but were goals of certain summer programs, particularly those classified as Low Structure.

Recommendations

It is the recommendation of this study:

1. that summer programs for severely handicapped children be funded and continued, at least to the same degree that summer programs are made available to non-handicapped children but that the more specific needs of handicapped children be addressed;
2. that recreation in an integrated setting supplement skill and behavior goals of High Structure programs;
3. that increasing emphasis on skills and behaviors in Low Structure programs, as well as a low adult-child ratios in all programs be accomplished within the structures of present program organizations;
4. that greater integration with non-handicapped children and the community be mandated for those programs not now integrated, thus providing greater normalization of handicapped individuals, but allowing the degree and manner of implementation to differ acco ding to local circumstances;
5. that university and high-school students continue to be employed but that increased preparation of staff, especially staff lacking in training and experience with severely handicapped children be carried out before programs begin;
6. that further studies be made to assess long-term impact of summer programs on skills and behaviors of severely handicapped children.